



IXL Skill Alignment

5th grade alignment for Investigations 3



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Unit 1

Puzzles, Clusters, and Towers

Investigation 1: Properties of Numbers

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. Choose the multiples of a given number: factors up to 10 2UQ 2. Choose the factors of a given number: factors up to 10 ZBF <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Write multiplication equations for arrays and equal groups 59X
Session 1.2	<ol style="list-style-type: none"> 1. Find a factor ZF9 2. Find all the factor pairs of a number 5BL
Session 1.3	<ol style="list-style-type: none"> 1. Multiplication facts to 10 C7L
Session 1.4	<ol style="list-style-type: none"> 1. Order of operations: 3 or 4 terms P8H 2. Evaluate numerical expressions with parentheses in different places 9F5 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Write numerical expressions for word problems NF5
Session 1.5	<ol style="list-style-type: none"> 1. Order of operations: 4 or 5 terms NHM 2. Multiplication input/output tables: factors up to 10 HWP

Investigation 2: Multiplication Strategies

Textbook section	IXL skills
Session 2.1	<ol style="list-style-type: none"> 1. Multiply by 2-digit numbers using area models I QHV <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Choose numbers with a particular product: factors up to 10 T2Y

Session 2.2

1. Multiply by 2-digit numbers using area models
II N79

Session 2.3

1. Add decimal numbers using blocks NWJ
2. Multiply numbers ending in zeroes 6HY
3. Multiplication patterns: multiples of 10 and 100 HGQ

Also consider

- Multiply numbers ending in zeroes: word problems AUR

Session 2.4

1. Use one multiplication fact to complete another 2EN

Session 2.5

1. Order of operations: review ZW8

Session 2.6

1. Multiply using the distributive property 5R4

Session 2.7

1. Multiply 2-digit by 2-digit numbers: word problems JCC

Investigation 3: Division Strategies**Textbook section****IXL skills****Session 3.1**

1. Multiplication strategies: review MDL

Session 3.2

1. Relate multiplication and division VA6

Also consider

- Divide using repeated subtraction JGW

Session 3.3

1. Divide 3-digit by 2-digit numbers: word problems D7H

Also consider

- Divide 3-digit numbers by 1-digit numbers using area models LZL

Session 3.4

1. Identify mistakes involving the order of operations JLJ

Also consider

- Divide 2-digit by 1-digit numbers using the distributive property EGM

Session 3.5

1. Divide 3-digit by 2-digit numbers using partial quotients SQP

Session 3.6

1. Divide numbers ending in zeroes: up to hundreds 5HS
2. Write numerical expressions 38D

Session 3.7

1. Multiplication and division up to hundreds: word problems GWW
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Unit 2

Prisms and Solids

Investigation 1: Finding the Volume of Solids

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. Volume of rectangular prisms made of unit cubes <small>WG8</small> 2. Relationship between volume and the area of the base: word problems <small>QMA</small>
Session 1.2	<ol style="list-style-type: none"> 1. Volume of cubes and rectangular prisms: description given <small>SR8</small> <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Divide 3-digit by 2-digit numbers: interpret remainders <small>87G</small>
Session 1.3	<ol style="list-style-type: none"> 1. Compare volumes and dimensions of rectangular prisms: word problems <small>JP6</small>
Session 1.4	<ol style="list-style-type: none"> 1. Division facts to 10 <small>VHU</small> 2. Use one multiplication fact to complete another <small>2EN</small>
Session 1.5	<ol style="list-style-type: none"> 1. Volume of cubes and rectangular prisms: figure given <small>JVP</small> 2. Volume of cubes and rectangular prisms: word problems <small>NR6</small>
Session 1.6	<ol style="list-style-type: none"> 1. Volume of irregular figures made of unit cubes <small>WCE</small> 2. Volume of compound figures I <small>APW</small>
Session 1.7	
Session 1.8	<ol style="list-style-type: none"> 1. Volume: review <small>DRD</small>

Investigation 2: Using Standard Cubic Units

Textbook section	IXL skills
Session 2.1	<ol style="list-style-type: none">1. Identify objects with volume YEL2. Understanding cubic units L56
Session 2.2	<ol style="list-style-type: none">1. Inequalities with multiplication and division YWE
Session 2.3	
Session 2.4	<ol style="list-style-type: none">1. Volume of compound figures II ZMN

Unit 3

Rectangles, Clocks, and Tracks

Investigation 1: Comparing and Ordering Fractions

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> Fractions review PCF Fractions of a whole: word problems 2VP Fractions of a group: word problems MR2
Session 1.2	<ol style="list-style-type: none"> Find equivalent fractions using area models AJH Identify equivalent fractions ZGB
Session 1.3	<ol style="list-style-type: none"> Equivalent fractions: find the missing numerator or denominator J2Z <p><i>Also consider</i></p> <ul style="list-style-type: none"> Equivalent fractions: word problems 84W
Session 1.4	<ol style="list-style-type: none"> Compare fractions 7VD Compare fractions using benchmarks RZX <p><i>Also consider</i></p> <ul style="list-style-type: none"> Graph and compare fractions on number lines RGV Compare fractions: find the missing numerator or denominator G9F
Session 1.5	<ol style="list-style-type: none"> Put fractions in order T76 Compare fractions: word problems ZY6 <p><i>Also consider</i></p> <ul style="list-style-type: none"> Graph and order fractions on number lines 6T9
Session 1.6	<ol style="list-style-type: none"> Put fractions in order II JH8

Investigation 2: Adding and Subtracting Fractions

Textbook section	IXL skills
Session 2.1	1. Inequalities with fractions VCS
Session 2.2	
Session 2.3	1. Add fractions with unlike denominators using models 2BS 2. Add fractions with unlike denominators D9N 3. Add fractions with unlike denominators: word problems XPP
Session 2.4	1. Complete addition sentences with fractions GEZ
Session 2.5	1. Compare sums of fractions 7RW 2. Add 3 or more fractions with unlike denominators PBF
Session 2.6	1. Patterns of equivalent fractions BC6
Session 2.7	1. Subtract fractions with unlike denominators using models QA6 2. Subtract fractions with unlike denominators VSP

Investigation 3: Adding and Subtracting Mixed Numbers

Textbook section	IXL skills
Session 3.1	1. Add and subtract fractions with unlike denominators FNX 2. Add and subtract fractions with unlike denominators: word problems TCD <i>Also consider</i> <ul style="list-style-type: none"> Decompose fractions multiple ways: sums up to 1 8TK
Session 3.2	1. Decompose fractions multiple ways: including sums greater than 1 97X

Session 3.3

1. Add and subtract mixed numbers with unlike denominators RZC
2. Add and subtract mixed numbers with unlike denominators: word problems 48E

Session 3.4

1. Create and interpret line plots with fractions I DDF

Session 3.5

1. Create and interpret line plots with fractions II JVD

Also consider

- Add 3 or more fractions with unlike denominators PBF
- Add 3 or more fractions: word problems BFQ

Session 3.6

1. Compare sums and differences of mixed numbers T9C

Unit 4

How Many People and Teams?

Investigation 1: Multiplication Strategies

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. Multiply using area models I 2PQ 2. Add and subtract fractions and mixed numbers MYJ
Session 1.2	<ol style="list-style-type: none"> 1. Multiply using area models II JGE
Session 1.3	<ol style="list-style-type: none"> 1. Multiply 2-digit numbers using partial products CZ5 2. Multiply 2-digit numbers by 2-digit numbers LLJ <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply by 2-digit numbers: complete the missing steps KQ7
Session 1.4	<ol style="list-style-type: none"> 1. Estimate products: multiply by 2-digit numbers 3J5 2. Multiply by 2-digit numbers EK6 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply by 2-digit numbers: word problems 4K9
Session 1.5	<ol style="list-style-type: none"> 1. Multiply by numbers up to 3 digits HRG 2. Add or subtract three fractions with unlike denominators 9Z4

Investigation 2: Division Strategies and Notation

Textbook section	IXL skills
Session 2.1	<ol style="list-style-type: none"> 1. Order of operations: review ZW8
Session 2.2	<ol style="list-style-type: none"> 1. Divide by 2-digit numbers using partial quotients ASM 2. Divide numbers ending in zeroes: up to thousands 8EX

3. Divide 2-digit and 3-digit numbers by 2-digit numbers HMA

Session 2.3

1. Divide by 2-digit numbers 7JE
2. Divide by 2-digit numbers: word problems UYH

Session 2.4

1. Multiply and divide: up to thousands ZK5

Also consider

- Estimate quotients: 2-digit divisors EFW

Session 2.5

1. Complete the division table PTG
2. Complete the division sentence: 2-digit divisors HMZ

Session 2.6

1. Estimate products and quotients: word problems DSA

Session 2.7

1. Choose numbers with a particular quotient FBX

Investigation 3: Using the Operations

Textbook section

IXL skills

Session 3.1

1. Multiply and divide by multiples of 10 9QA

Also consider

- Inequalities with multiplication and division YWE

Session 3.2

1. Multiplication and division up to thousands: word problems UXE
2. Multiply and divide numbers ending in zeroes CYM

Session 3.3

1. Multiply and divide money amounts: word problems NNR
2. Multi-step word problems: multiplicative comparison V59

Session 3.4

1. Multiply and divide with large numbers 5L7

Session 3.5

1. Multiplication and division input/output tables CZV

Unit 5

Temperature, Height, and Growth

Investigation 1: Graphing Temperature and Height

Textbook section	IXL skills
Session 1.1	1. Interpret line graphs UFX <i>Also consider</i> <ul style="list-style-type: none"> Interpret double line graphs 8N7
Session 1.2	1. Create line graphs KFZ <i>Also consider</i> <ul style="list-style-type: none"> Create double line graphs GU5
Session 1.3	1. Graph points from a table HWV <i>Also consider</i> <ul style="list-style-type: none"> Interpret a proportional graph: word problems 6CK
Session 1.4	1. Interpret a graph: word problems AVP
Session 1.5	1. Complete an input/output table: word problems WWC 2. Graph patterns using rules PN2 <i>Also consider</i> <ul style="list-style-type: none"> Complete an input/output table K2K
Session 1.6	1. Number sequences BA8
Session 1.7	1. Analyze graphed relationships SMY 2. Number sequences involving decimals H73

Investigation 2: Analyzing Geometric Patterns

Textbook section	IXL skills
Session 2.1	<ol style="list-style-type: none"> 1. Find the rule: word problems ZVJ 2. Shape patterns 9DE
Session 2.2	<ol style="list-style-type: none"> 1. Multiply and divide numbers ending in zeroes CYM
Session 2.3	<ol style="list-style-type: none"> 1. Find pattern rules from graphs VTD 2. Multiply money amounts: multi-step word problems THS <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Price lists JDY
Session 2.4	<ol style="list-style-type: none"> 1. Describe the coordinate plane PF8 2. Objects on a coordinate plane NTR
Session 2.5	<ol style="list-style-type: none"> 1. Graph points on a coordinate plane AST
Session 2.6	<ol style="list-style-type: none"> 1. Use a rule to complete a table and a graph N9B 2. Multiply and divide: up to thousands ZK5
Session 2.7	

Unit 6

Between 0 and 1

Investigation 1: Representing and Comparing Decimal

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. What decimal number is illustrated? SJ7 2. Model decimals and fractions FQP
Session 1.2	<ol style="list-style-type: none"> 1. Equivalent decimals EEJ 2. Convert between fractions and decimals Y7S <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify place values in decimal numbers 5N5
Session 1.3	<ol style="list-style-type: none"> 1. Compare decimals HZU 2. Compare decimals to a model B2M <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Compare decimals using models N9M
Session 1.4	<ol style="list-style-type: none"> 1. Compare decimals on number lines CUF 2. Order decimals using a number line 6UP <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Identify decimals on number lines 6UM • Put decimal numbers in order using models SNW
Session 1.5	<ol style="list-style-type: none"> 1. Compare fractions and decimals NSF 2. Put decimals in order RD6
Session 1.6	<ol style="list-style-type: none"> 1. Identify rounded decimals J9T
Session 1.7	<ol style="list-style-type: none"> 1. Round decimals HB6 2. Compare, order, and round decimals: word problems 2MV
Session 1.8	<ol style="list-style-type: none"> 1. Pick the true decimal inequalities REH

Investigation 2: Adding and Subtracting Decimals

Textbook section	IXL skills
Session 2.1	1. Compare and order decimals: review 5S8
Session 2.2	1. Add decimals: word problems 9LZ <i>Also consider</i> <ul style="list-style-type: none"> Find the missing number: decimal inequalities GEB Estimate products: multiply by 2-digit numbers 3J5
Session 2.3	1. Add decimal numbers using blocks NWJ 2. Add decimals 6DG
Session 2.4	1. Subtract decimals E46 2. Subtract decimals: word problems DWD
Session 2.5	1. Estimate sums and differences of decimals using rounding L9W 2. Add and subtract decimals YLT <i>Also consider</i> <ul style="list-style-type: none"> Estimate sums and differences of decimals using benchmarks CHE
Session 2.6	1. Add and subtract decimal numbers: word problems 6MF
Session 2.7	1. Inequalities with decimal addition and subtraction RYX <i>Also consider</i> <ul style="list-style-type: none"> Complete the decimal addition or subtraction sentence QGN
Session 2.8	1. Convert decimals between standard and expanded form using fractions BLQ <i>Also consider</i> <ul style="list-style-type: none"> Convert decimals between standard and expanded form WTU

Session 2.9

1. Choose decimals with a particular sum or difference LVP
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Unit 7

Races, Arrays, and Grids

Investigation 1: Multiplying and Dividing Fractions

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. Multiply fractions and whole numbers UUX 2. Multiply fractions by whole numbers: word problems U2V <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply fractions by whole numbers using number lines DRU • Multiply fractions by whole numbers using arrays RB9
Session 1.2	<ol style="list-style-type: none"> 1. Fractions of a number E7W 2. Fractions of a number: word problems RHE
Session 1.3	<ol style="list-style-type: none"> 1. Scaling by fractions and mixed numbers AB5 2. Multiply a mixed number by a whole number 6Q4 <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Scaling whole numbers by fractions: justify your answer Q7M
Session 1.4	<ol style="list-style-type: none"> 1. Multiply a whole number by a fraction or mixed number WUK 2. Multiply a whole number by a fraction or mixed number: word problems H84
Session 1.5	<ol style="list-style-type: none"> 1. Multiply two unit fractions using models HDJ 2. Multiply two unit fractions LWG <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply two unit fractions using models: fill in the missing factor 6VH

Session 1.6

1. Multiply a unit fraction and a non-unit fraction using models M93

Also consider

- Multiply a unit fraction and a non-unit fraction using models: fill in the missing factor L6U

Session 1.7

1. Multiply two fractions using models RLD
2. Multiply two fractions 8KV

Also consider

- Multiply two fractions using models: fill in the missing factor LD7

Session 1.8

1. Multiply whole numbers, fractions, and mixed numbers W66
2. Multiply whole numbers, fractions, and mixed numbers: word problems 8HH

Session 1.9

1. Divide whole numbers by unit fractions using area models JYS
2. Divide whole numbers by unit fractions 3L9
3. Divide whole numbers by unit fractions: word problems 8QW

Session 1.10

1. Divide unit fractions by whole numbers using area models YBE
2. Divide unit fractions by whole numbers GXY

Session 1.11

1. Divide whole numbers and unit fractions SPB
2. Divide unit fractions and whole numbers: word problems G2N

Investigation 2: Fractions as Division**Textbook section****IXL skills****Session 2.1**

1. Relate division and fractions D86

Session 2.2

1. Complete the fraction multiplication sentence S6G

Also consider

- Multiplication and division up to thousands: word problems UXE

Session 2.3

1. Convert fractions to decimals WLD

Also consider

- Divide by 2-digit numbers 7JE

Session 2.4

1. Understand fractions as division: word problems CTD

Investigation 3: Multiplying and Dividing Decimals

Textbook section	IXL skills
Session 3.1	<ol style="list-style-type: none"> 1. Relationship between decimal place values DVM 2. Multiply by a power of ten with decimals: find the missing number GC5
Session 3.2	<ol style="list-style-type: none"> 1. Estimate products of whole numbers and decimals Q6D 2. Multiply whole numbers by decimals 6JH <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply a decimal by a power of ten DN2
Session 3.3	<ol style="list-style-type: none"> 1. Multiply two decimals: where does the decimal point go? 6FA 2. Multiply two decimals: products up to hundredths FLL <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply decimals using grids 66Z
Session 3.4	<ol style="list-style-type: none"> 1. Multiply two decimals: products up to thousandths TDG <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Multiply money amounts: word problems 54C
Session 3.5	<ol style="list-style-type: none"> 1. Multiply decimals and whole numbers: word problems 83A

Session 3.6

1. Divide by a power of ten with decimals: find the missing number R2P

Session 3.7

1. Estimate decimal quotients CZ9
2. Divide decimals and whole numbers U8F

Session 3.8

1. Convert metric units of length, mass, and capacity VQP
2. Divide by decimals 8FT

Also consider

- Divide money amounts: word problems 2RU

Session 3.9

1. Convert customary units of length and weight FV5
2. Convert mixed customary units of length and weight QG7

Also consider

- Divide decimals by whole numbers: word problems TMB

Session 3.10

1. Convert customary units of capacity JVH
2. Compare customary or metric units I L86

Session 3.11

1. Multi-step problems with customary or metric unit conversions ST6
2. Compare customary or metric units II ERQ

Unit 8

Properties of Polygons

Investigation 1: Categories and Properties of Polygons

Textbook section	IXL skills
Session 1.1	<ol style="list-style-type: none"> 1. Classify triangles: acute, obtuse, and right T7B 2. Classify triangles: scalene, isosceles, and equilateral XNF
Session 1.2	<ol style="list-style-type: none"> 1. Names of quadrilaterals EF7 2. Parallel sides in quadrilaterals 58M <p><i>Also consider</i></p> <ul style="list-style-type: none"> • Sort polygons into Venn diagrams US8
Session 1.3	<ol style="list-style-type: none"> 1. Pick all the names for a quadrilateral E97 2. Identify the relationships between quadrilaterals KCG
Session 1.4	<ol style="list-style-type: none"> 1. Describe relationships among quadrilaterals SZT 2. Classify triangles: review TJL
Session 1.5	<ol style="list-style-type: none"> 1. Classify quadrilaterals 6ZQ

Investigation 2: Finding Perimeter and Area of Related Rectangles

Textbook section	IXL skills
Session 2.1	<ol style="list-style-type: none"> 1. Area of figures made of unit squares L6P 2. Find the perimeter or area: whole number side lengths 27T
Session 2.2	<ol style="list-style-type: none"> 1. Compare area or perimeter: rectangles and squares XWA 2. Classify triangles and quadrilaterals: review XXJ
Session 2.3	<ol style="list-style-type: none"> 1. Find the perimeter or area: mixed number side lengths Z5G

Also consider

- Perimeter and area: effect of changing the side length 2CF
- Find the perimeter or area: decimal number side lengths BGV

Session 2.4

1. Relationship between area and perimeter HAV

Session 2.5

1. Multiply fractions using models: review 8NC
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